

REMARKS

Claims Status

Claims 10, 16, 19, 21-27, 33 and 34 are currently amended. Claims 10, 25, and 34 are amended, in part, to edit typographical errors. Claims 10, 16 and 24 are amended to recite a specific DNA insert (refer to paragraph 41 of the original application for written support). Amendments to claims 10, 16, 22 and 23 are made to clarify that the insert DNA has defined junction sequences with the cotton genomic DNA. These amendments find written support in Figures 2-5, paragraphs 7-17 and 48, and the Examples of the original application. Written support for amendment to claim 34 is in paragraph 38 of the original application, which specifies that detection of either SEQ ID NO:3 or 4 can also be used to determine which progeny are glyphosate tolerant. Amendment to claim 21 is made to recite that seeds deposited with the ATCC are representative of the transgenic cotton plants claimed in the current invention. Claims 22-27 are amended to recite "DNA-containing part". Amendments to claims 33 and 34 are made in order that they refer to currently pending claims.

Claims 1-9, 12-15, 17-18, 20 and 28-32 are cancelled.

Claims 35-38 are new. Claims 35 and 36 are written to further recite that the DNA insert in the recited cotton plant has junction sequences comprised of SEQ ID NO:3 and 4. Written support for these new claims is found in Figures 4 and 5 of the original application, for example. Claims 37 and 38 are written to recite that the second progeny plants of claim 20 or plant and plant materials listed in claim 21 can be identified based on the presence of SEQ ID NO:1 or SEQ ID NO:2. Written support for these new claims is found in paragraphs 12, 14 and 42, for example.

Applicant respectfully submits that the foregoing amendment to the claims does not introduce any new subject matter to the application. With the present amendment, there are seventeen claims pending, namely 10, 11, 16, 19, 21-27 and 33-38.

Response To Election/Restrictions

Examiner maintains the restriction requirement issued on February 17, 2006 and has examined claims corresponding to invention group I. Without prejudice to filing one or more divisional applications, Applicant cancels claims 7-9, 12-15, 17, 18 and 20, which were withdrawn from examination by Examiner.

Response To Claims Rejections – 35 U.S.C. § 112 (first paragraph)

Examiner rejected claims 16 and 22-34 as allegedly failing to comply with both the written description and enablement requirements established by 35 USC 112, first paragraph. Examiner's rejection provides that the specification does not describe other glyphosate tolerant cotton plants comprising SEQ ID NO:1 and 2 besides that characterized by the MON 88913 genetic event.

As amended, claims 16 and 22-34 find written description in the original application through its disclosure of a particular isolate (event MON 88913) which embodies a glyphosate tolerant cotton plant as recited by these claims. This isolate contains the genetic locus comprising the insertion of pMON51915 (illustrated in Figure 2); the 5' and 3' junctions of this DNA insert with the cotton genomic sequence are minimally comprised of SEQ ID NO:1 and 2, respectively (refer to paragraphs 7-17, for example).

Regarding both written description and enablement, skilled artisans would readily understand that this locus can be predictably transferred from one genetic background to another by means of out-crossing. Indeed, the instant specification reviews this point (refer to paragraph 30) and discloses that the locus can be inherited in Mendelian fashion (refer to paragraph 54). Certain progeny from such a cross would carry the locus in a genetic background different from each parent, and constitute other examples of cotton plants that embody the claim recitations.

With further regard to enablement, specific vector-cotton junction sequences (e.g. SEQ ID NO:1 and 2) within progeny plants are easily detected by methods commonly used in the art, such as hybridization and PCR amplification. These techniques are discussed, for example, in paragraphs 12, 14 and 42 of the specification. Hence, cotton plants embodied by the claims are readily identifiable. For the above reasons, Applicant respectfully contends that claims 16 and 22-34 currently find written support and enablement in the specification.

Examiner further rejected claims 10, 11, 19, 24, 30, 33 and 34 as allegedly failing to comply with the enablement requirement of 35 USC 112. This rejection is based on the allegation that the cotton plant described in the specification is essential to practicing the recited invention and, therefore, that its seeds should be publicly available.

Applicant kindly directs Examiner to paragraph 75 of the original application, which discloses that seeds of this cotton plant have been deposited to the American Type Culture Collection (ATCC) under the terms of the Budapest Treaty. Provided herewith is a signed Declaration to this effect, also stating that restrictions to the availability of the deposited material will be irrevocably removed upon the granting of a patent on the current application. Accompanying this Declaration is the ATCC receipt of deposit of the seeds comprising event

MON 88913. Applicant respectfully submits that the second enablement rejection is overcome by filing these documents.

Response To Claims Rejections – 35 U.S.C. § 112 (second paragraph)

Claims 10, 11, 19, 24, 30, 33 and 34 stand rejected under 35 USC 112, second paragraph, as being indefinite. Examiner alleges that, since the recitation “cotton event MON 88913” is not an art-recognized plant characteristic, the metes and bounds of these claims are unclear.

Event MON 88913 is characterized by the insertion of a DNA vector encoding EPSPS within the cotton genome. This event is further characterized by specific 5’ and 3’ junction sequences of the DNA insert with the cotton DNA; detection of these junctions serves as a means by which the claimed cotton plant can be easily identified. As amended, the claims recite the subject matter using this definite terminology. Thus, Applicant respectfully submits that the claims comply with the second paragraph of 35 USC 112.

Response To Claims Rejections – 35 U.S.C. § 102

Claims 21-27 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent 6,573,437 to Anderson et al., in consideration of a DOW Agrosiences disclosure. Examiner alleges that Anderson’s disclosure of a cotton plant anticipates these claims with respect to their recitation of cotton plant parts, lint inherently being one such part. Argument is provided that, since lint does not contain DNA, the lint of the presently claimed cotton plant has no novel features (e.g. DNA sequences) in comparison to lint from the Anderson cotton plant.

Claims 21-27 are currently amended to recite a glyphosate tolerant cotton plant and DNA-containing parts thereof. Claim 25 is also amended to delete recitation of “lint”. In light

of these amendments, Applicant respectfully submits that the current claims are novel over Anderson et al.

Response To Claims Rejections – 35 U.S.C. § 103

Claims 16 and 22-34 stand rejected under 35 USC 103 as being obvious over the Anderson patent. In leveling this rejection, Examiner asserts that the sequences recited by these claims are known in the prior art – particularly those sequences imbedded within SEQ ID NO:3 and 4 – and that use thereof in preparing a glyphosate tolerant cotton plant would have been obvious in view of Anderson.


As amended, the above claims recite a cotton plant that is glyphosate tolerant by virtue of its comprising an EPSPS-encoding DNA insert at a certain location within the cotton genome. This location is specifically defined by the sequences SEQ ID NO:1-4 which represent the junctions between the DNA insert and cotton DNA. Anderson does not suggest the use of EPSPS expression vectors at this genomic site in order to derive glyphosate tolerant cotton plants. Given this lack of direction, as well as the level of unpredictability in this art, Applicant respectfully submits that the amended claims are not obvious.

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This response is being filed with a petition and fee for a two-month extension of time for responding to the Office Action. Should any other fees be deemed necessary for any reason relating to this document, the Commissioner is hereby authorized to deduct the fees from

Howrey LLP Deposit Account 08-3038/11899.0239.PCUS00. In order to facilitate examination,
Examiner is invited to contact the undersigned agent to discuss this response.

Respectfully submitted,



Dennis R. Chesire
Reg. No. 57,452
Agent for Assignee
MONSANTO TECHNOLOGY LLC

Customer No. 45,607
HOWREY LLP
1111 Louisiana, 25th Floor
Houston, TX 77002
713.654.7678 (phone)
713.787.1440 (facsimile)

Date: October 24, 2006